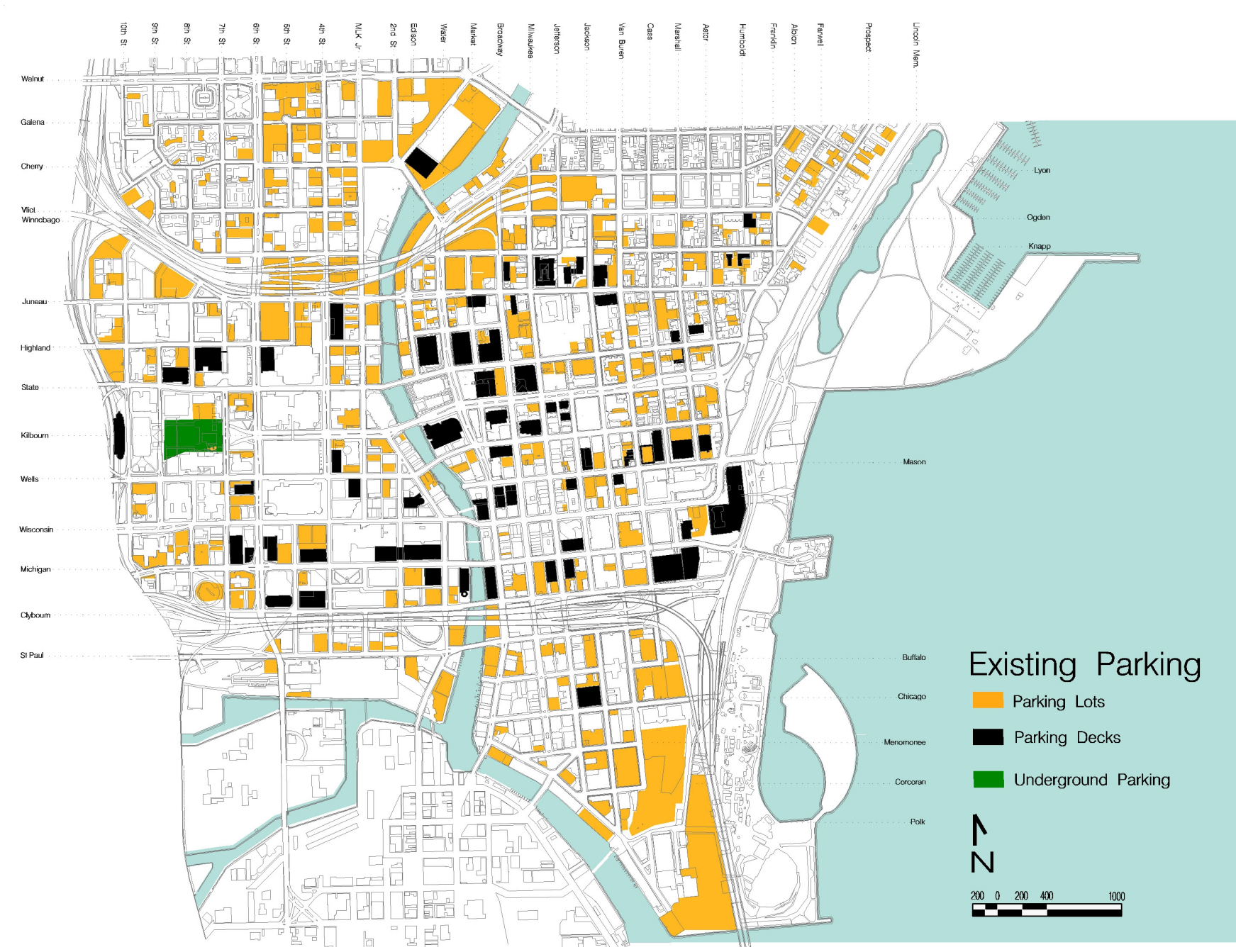
Parking



Exposed parking lots along sidewalks present a negative appearance

On an average 16,800 off-street parking spaces, or 4,500,000 square feet, are empty Downtown. The overall occupancy rate for all off-street parking is 60.5 percent. (HNTB Parking Management Study, considering the provision of off-street parking states that parking facilities should strive for an occupancy rate of 85 percent.)

As Milwaukee deepened its dependence upon the automobile, the need for parking spaces increased. In response to the omnipresent surface lots readily available for suburban developments, Downtown investors razed underutilized buildings to remain competitive. The competition against suburbia dictated that parking ratios were high. Ample Downtown parking has been, and will continue to be a pressing concern for the competitive success of Milwaukee. Of greater concern to Downtown's success will be how parking is accommodated. This plan proposes a parking solution in which the car is accommodated without overwhelming the physical form of Downtown.

Design of the parking plan began with an identification of all existing parking facilities. The HNTB Parking Demand Management Study identifies and presents capacity-occupancy data for all existing parking facilities. Review of the HNTB study revealed the following information.

- 77,025 on-street and off-street spaces exist Downtown
- 68,631 public and restricted off-street spaces exist in surface lots and decks
- 8,394 on-street parking spaces exist
- The overall occupancy rate of downtown parking spaces is approximately 61%
    - 60% occupancy for public parking
    - 61% occupancy for restricted parking

Initial analysis focused upon the capacity and occupancy percentage of structured and surface lots. The location of parking spaces with respect to Downtown activity generators was also studied and mapped.

The mapping process identified parking facilities within the following categories.

- Surface lots with high occupancy rates (80% or greater)
- Decks with a low occupancy rate (65% or below)
- Surface parking lots with street frontage
- Surface parking lots with 10 or fewer spaces
- Interior block surface parking lots
- Residential parking lots

These maps reveal that downtown is well served with parking facilities within a proximate location of all activity generators. However, most of the parking spaces exist beyond walking distance to most Downtown locations and uses. Furthermore, most downtown parking structures are underutilized.

General findings of this information are:

- Only 28 percent of the parking facilities have an 80 percent or higher occupancy rate
- 50 percent of the itemized facilities are occupied at 65 percent or less
- All parking lots comprise approximately 8.5 million square feet of downtown land

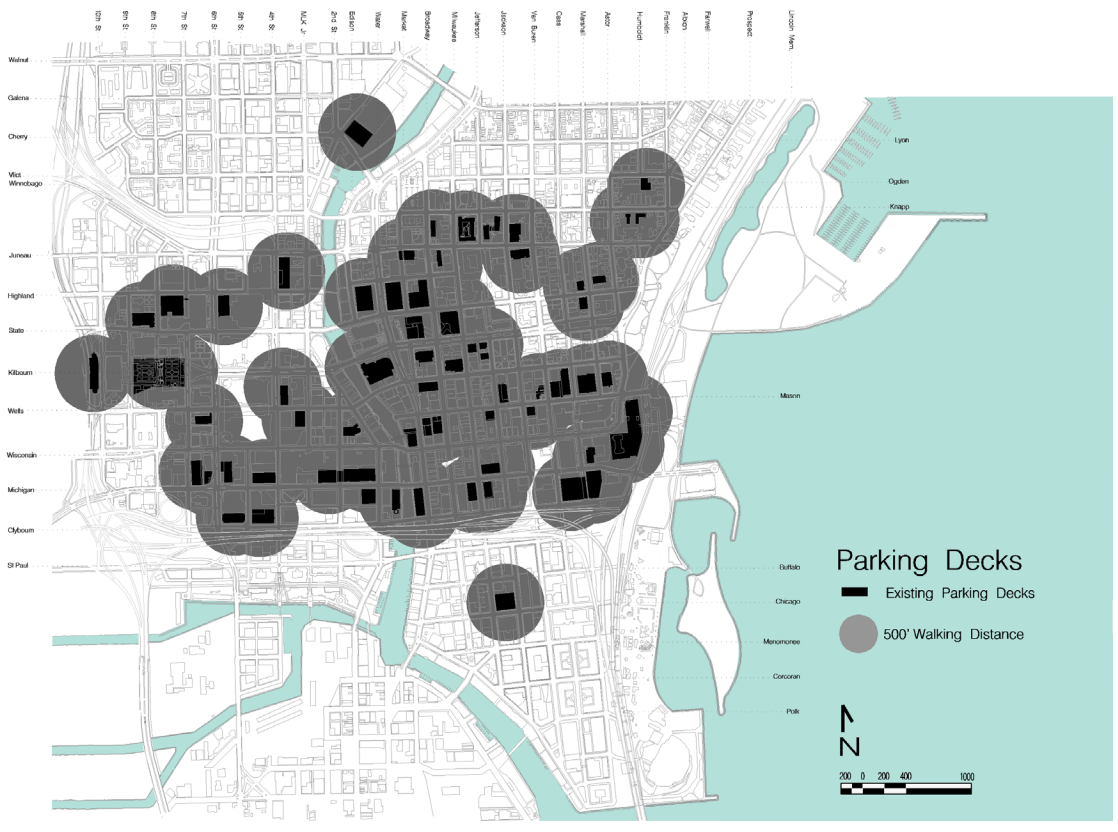
The overall occupancy rate for off-street parking is 60.5% which leaves over 16,800 unused parking spaces. Clearly Downtown does not want for parking spaces. Rather, parking spaces are inappropriately located and poorly signed. There is a disproportionate allocation of location and demand.

The new parking strategy must take a multi-facetted approach to managing the parking situation. People will not walk more than five minutes from a parking space to their destination. Therefore, the parking strategy requires adequate provision of public parking spaces within a five minute walk of all significant activity generators and residences. The Downtown Plan proposes the following parking management goals.

- The majority of future parking should be in decks.
- Shared parking facilities must become a priority.

Parking decks can accommodate the parking needs of different uses when proximate uses have different parking schedule demands.

- Establish a parking authority
- Future parking ratios must reflect the urban nature of a city, considering:
    - positive walking distances can reduce trip demand
    - alternative transit can reduce trip demand
- Parking facilities must have an intuitive way-finding system that directs drivers to decks and informs customers of the current occupancy level.
- Parking decks should have direct access to transit to enhance Downtown linkages; this is an important component of the "Park Once" concept.
- Parking spaces must be located within a reasonable 600 feet of smaller activity generators.
- Larger activity generators, particularly evening attractions, should rely on shared parking and transit.
- Residential parking must have a minimum number of on-site spaces with any additional parking in a shared parking deck within 600 feet.
- Design standards must be adopted for all surface lots and decks.



The HNTB study states that parking structures should obtain an 85% occupancy rate before additional parking is provided. If there was no structure or a shortage of capacity within a five-minute walk of the existing parking then a new structure was recommended. This relocation method raised the overall off-street parking rate from 60.5 percent to 74 percent. This method considered only existing parking demand. However, future redevelopment would generate additional parking spaces in Downtown. If an 85 percent occupancy rate for all parking decks is still targeted, 7,800 parking spaces are available in the existing decks for additional parking. Many of the existing decks may be underutilized because of the vacancy rate in buildings that, in the future when occupied, will require additional spaces. The need for additional parking structures will depend also on an uneven future demand of parking spaces (land use and/or location). The potential parking space needs, at full occupancy, can only be approximated. As land is redeveloped specific parking studies and plans will be required.

Concentration and reallocation of existing parking spaces through cooperative agreements must be the first phase of the new parking plan. This assumes that parking deck operators will want to more fully utilize their underused spaces. At peak use deck occupancy should approach 100% of capacity. This will be facilitated with the vehicular way finding system explained later in this section.

In an effort to control the overall number of required parking spaces the plan encourages mixed-use blocks. Mixed-uses buildings have the advantage of accommodating shared parking facilities. A mixture of uses sharing the same parking, throughout different times of the day and week, requires a smaller number of parking spaces than individual uses. The shared parking table (top right) suggests the different schedule requirements of parking spaces indicating the possibility of sharing.

These percentages allow for a greater density in districts when development that is heavily used during the day, for example office and retail, are mixed with developments heavily used at night such as residential. Encouraging shared parking facilitates mixed-use development while reducing the required number of parking spaces.

Shared Parking Table

	WEEKDAY		WEEKEND		NIGHTTIME
	DAYTIME	EVENING	DAYTIME	EVENING	
OFFICE	100%	10%	10%	5%	5%
RETAIL	70%	90%	100%	70%	5%
RESTAURANT	50%	100%	50%	100%	10%
RESIDENTIAL	60%	90%	80%	90%	100%

The following urban parking ratios were employed to calculate the new parking requirements.

Building Use	**# of Parking Spaces**
Residential	1.5 spaces per unit in building or on-site 0.5 to 1 additional spaces depending on number of bedrooms within 600 feet of the site
Retail	3 per 1,000 Sq. ft
Office	3 per 1,000 Sq. Ft
Theatres, restaurants, etc.	number of seats or tables

The development program to determine parking need was an average of four story residential buildings, four story mixed-use buildings, 8 to 15 story office buildings, and a full occupancy of existing habitable structures. When each vacant site was developed to the maximum potential, the following approximate square footage totals and corresponding parking requirement were generated:

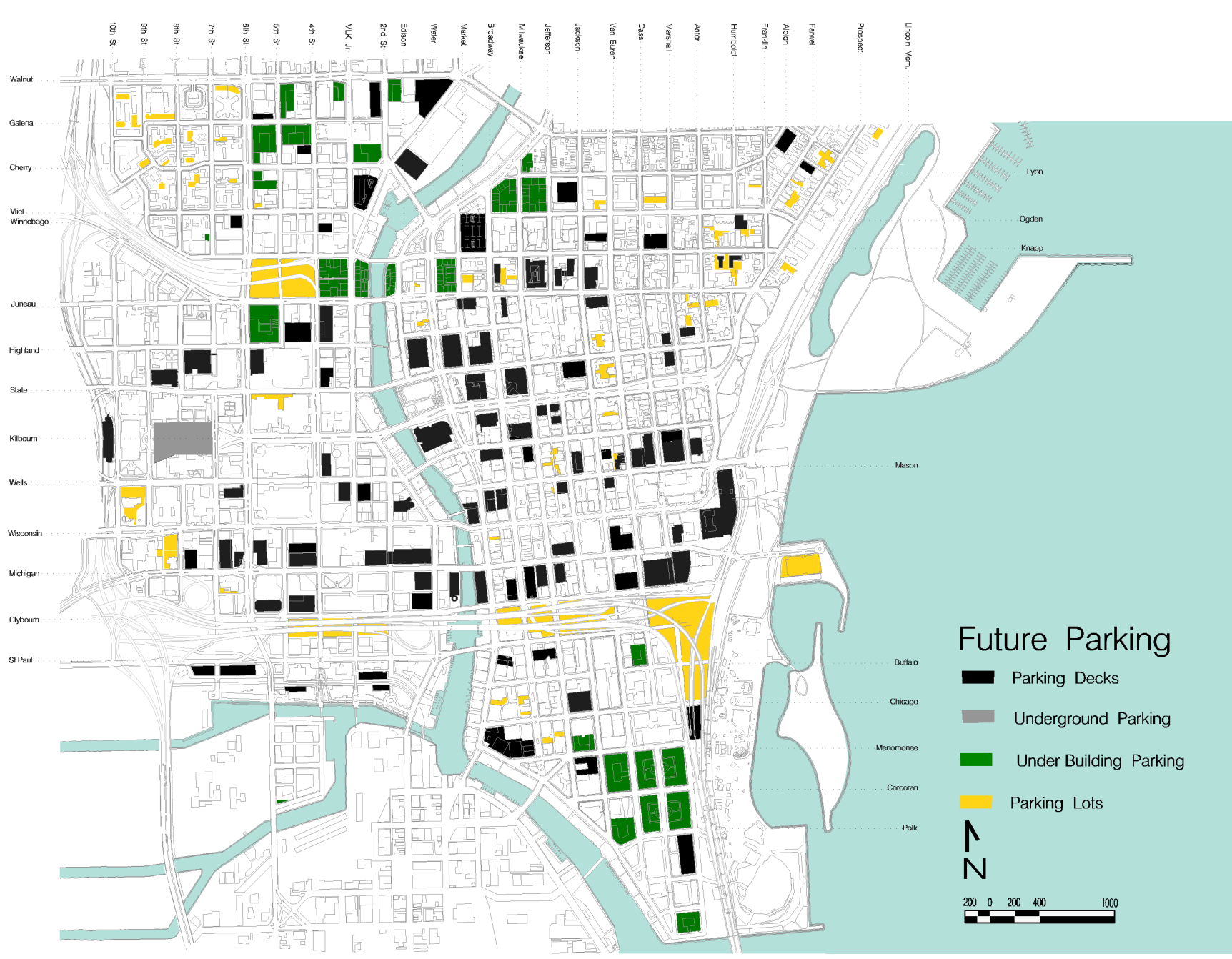
Use	**Sq. Ft.**	**Parking**
Mixed Use/Retail	680,000	2,940
Mixed Use/offices/hotel	2,700,000	8,100
Total		**11,000**
Current Oversupply		7,800
Future need		3,200

Residential and office buildings will accommodate parking needs in self-contained parking structures or underground parking.

Housing units	12,150	21,263 cars @1.75 per unit
Retail	301,670	905 spaces @ 3/1000 sq.ft
Office	488,280	1,464 spaces @ 3/1,000sq.ft.
Total		2,369 spaces


Michigan Street, existing condition


Simulation of parking deck facade improvements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Marshall
Astor
Humboldt
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Albion
Farwell
Prospect
Lincoln Mem.
Walnut
Galena
Cherry
Vliet
Winnebago
Juneau
Highland
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Kilbourn
Wells
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Clybourn
St Paul
Lyon
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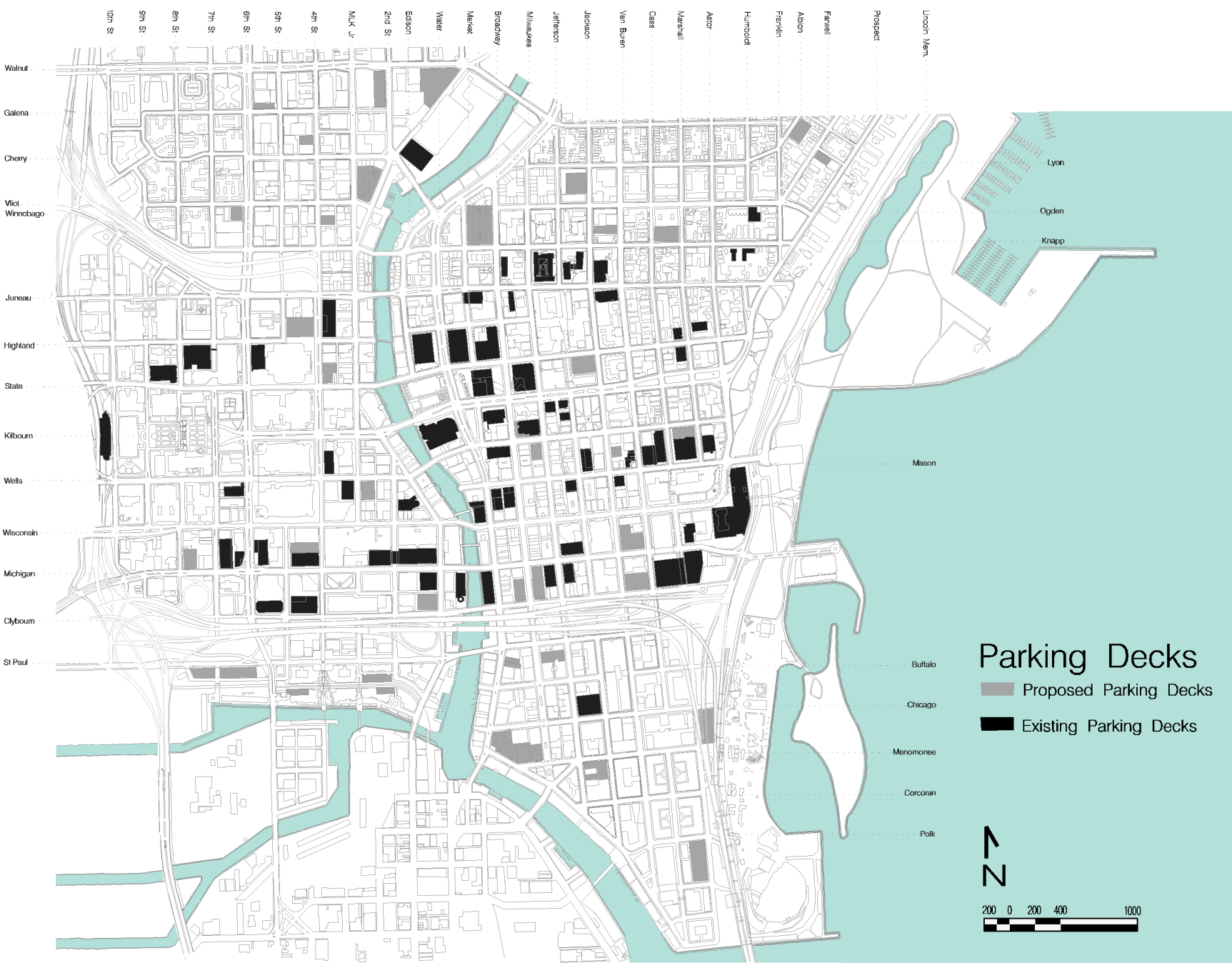
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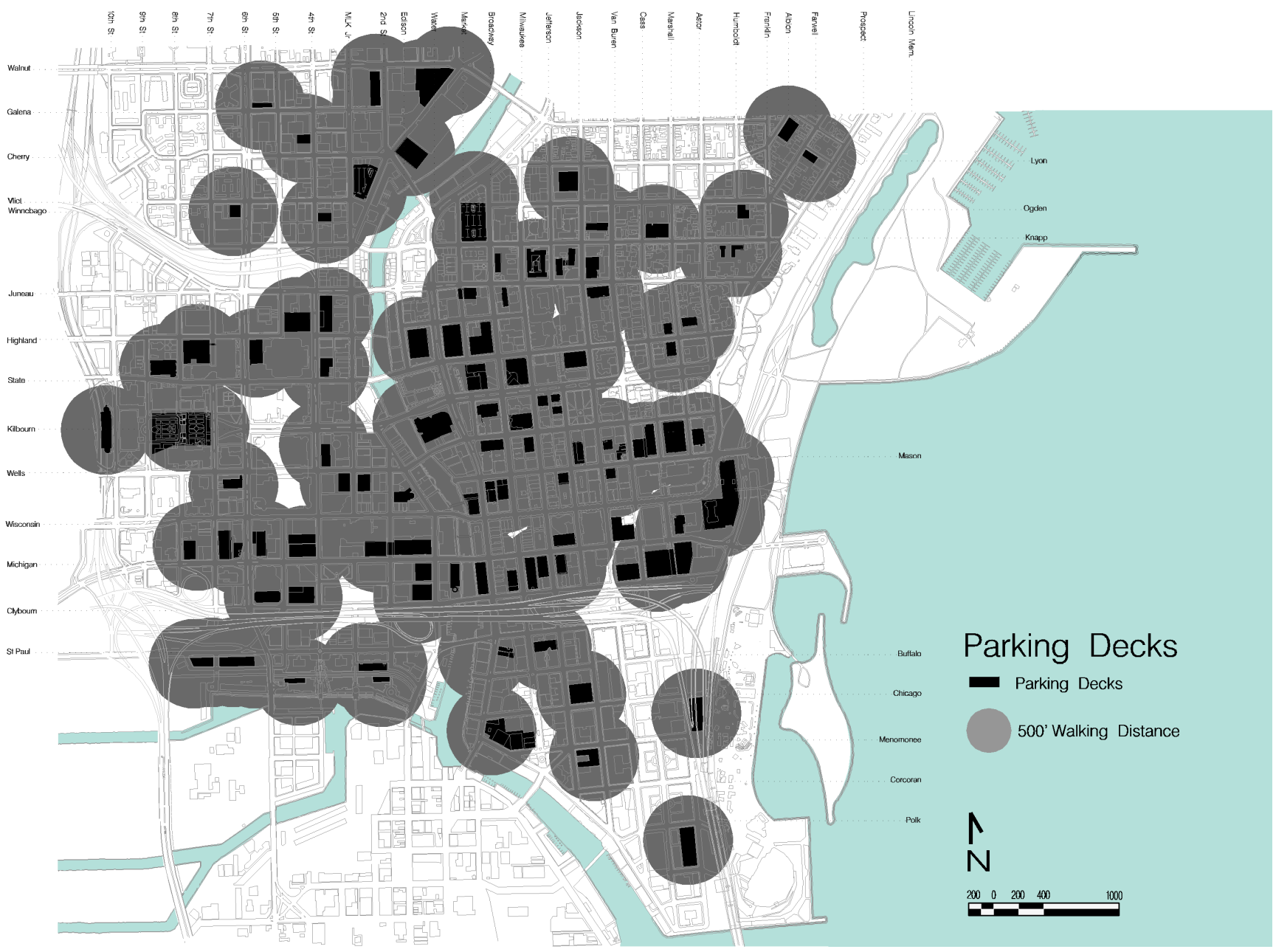


Proposed Parking Decks

Analysis of the existing parking conditions included the definition of the area serviced by each facility. The location of the new proposed decks was coordinated with the highest and best use of the parking lots, adjacent parcels, and transit. Within Downtown new parking decks have been located to provide facilities within a 600 foot distance of all services and entertainment.

The Parking Plan indicates the locations for parking decks, surface lots and underground parking. Approximately 35 new decks or additions to decks are recommended. These decks must meet the recommended parking deck guidelines.

There are three larger parking structures recommended in the plan. The first is located near the site of the Water Street Entertainment complex or MED–Milwaukee Entertainment District–between Broadway, Market, Knapp and Water. The second is located adjacent to the proposed Union Station mixed-use project. A third is located in the Third Ward near the festival grounds.

All parking decks are recommended as mixed-use structures with some form of commercial use on the ground floors facing the pedestrian realm.

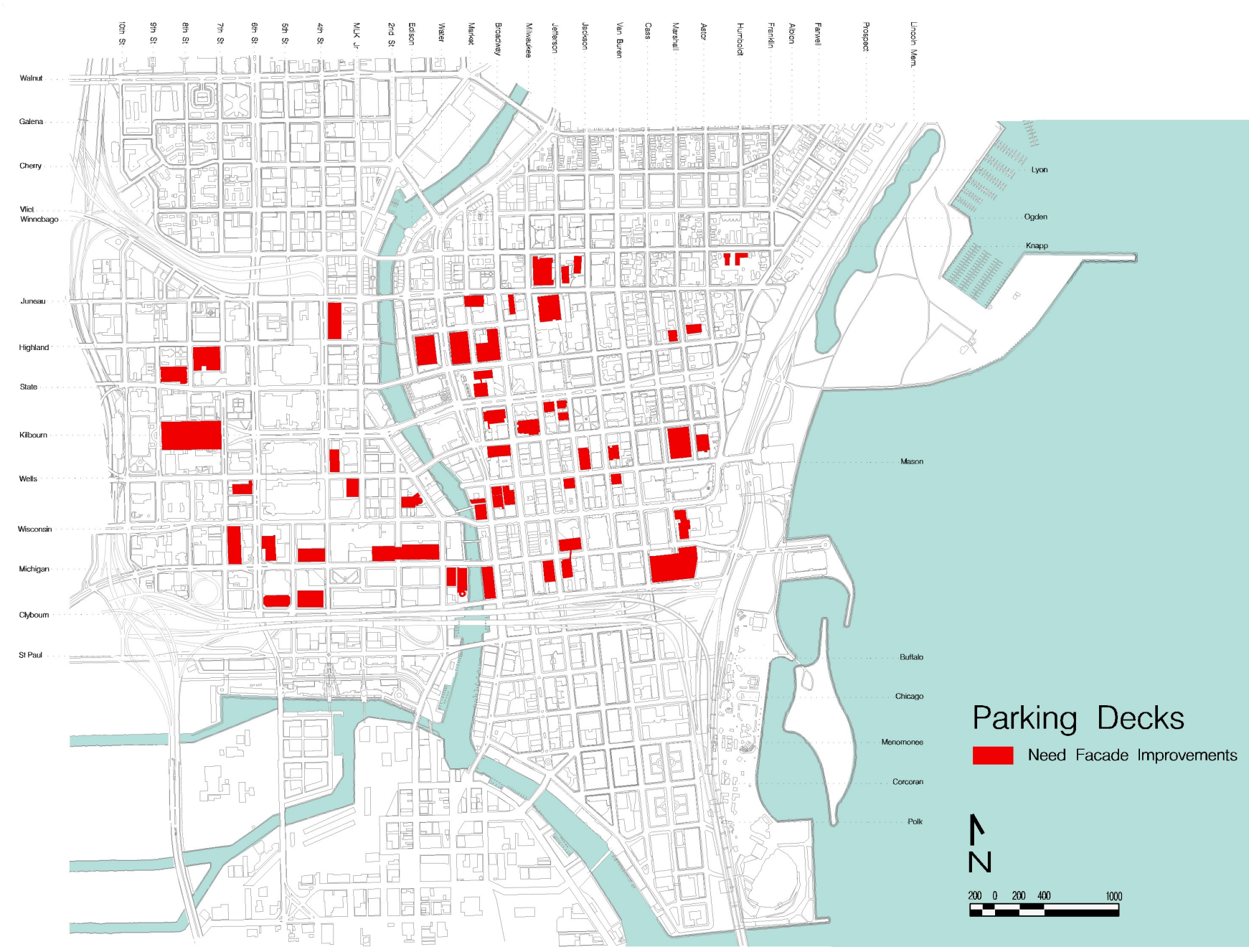
Two new parking/transfer facilities are strategically located within the redesigned mixed-use Union Station and behind the Water Street entertainment complex. These large structures are located at the northern and southwestern gateways to the City. The vehicular way-finding system will encourage Downtown visitors to park in these facilities. The transit system provides service between these structures and other downtown attractions; the trolleys stop at both facilities, the circulators are no more than one block away. This relationship permits visitors and employees to park in one of these facilities in the morning and not need their car again until they leave.

Parking Configurations

The Plan assumes that most of the new parking demands will be accommodated on site. Theoretical studies were completed to understand how on-site parking could be accommodated for residential, mixed-use, office and the other downtown uses. The most common parking recommendation was under the building, 1/2 level below grade, as shown to the right.

Recommended Underground Parking Configuration

Mixed-use Parking Deck



Proposed Parking Deck Screen has a printed image, a technique popular in Europe. This is an inexpensive way to enhance the streetscape image of existing decks.

Immediate Actions

Many of the existing parking decks create visually unacceptable streetscapes. The facades contribute a harsh character to the streets. Most pedestrians perceive the ground level facades as negative. Pedestrian entrances are non-distinguished and at times difficult to find. Conversion of these facades will be a challenge to implement. Purchasing facade easements might be an incentive for rehabilitation. Providing standards for businesses to emulate is an important step. The simulation to the left presents one solution. Here a parking deck facade is covered with a printed screen to conceal the structure. The image should create a positive structural composition on the streetscape.

Existing deck is negatively perceived

On-Street Parking

Parallel and diagonal head-in parking are recommended on most streets. It is the parking of first choice. It is recommended that curb side parking be provided and encouraged on all streets and boulevards where the right of way width allows for the recommended pedestrian realm and the minimum number of lanes. Curbside parking can range in width from 6 to 8 feet. Parking times should be limited to encourage turnover.

On-street parking designed to appear as an extension of the sidewalk

Screening parking lots along sidewalks presents a more pleasant environment

Trees within parking lots put the “park” back in parking lots

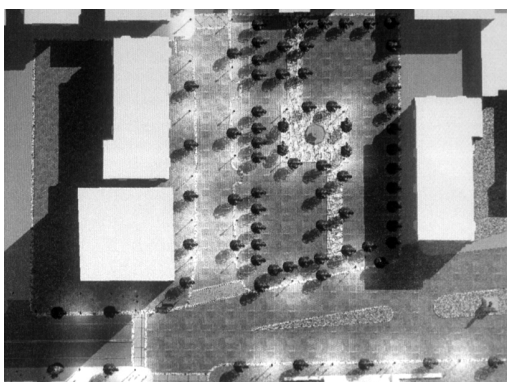
Surface Parking Lots

Surface parking will remain in Downtown either as lots waiting to be redeveloped or as planned surface lots. The only lots recommended for surface lots are those providing 10 or fewer spaces. All surface lots with street frontage will require special design standards for peripheral and interior landscaping.

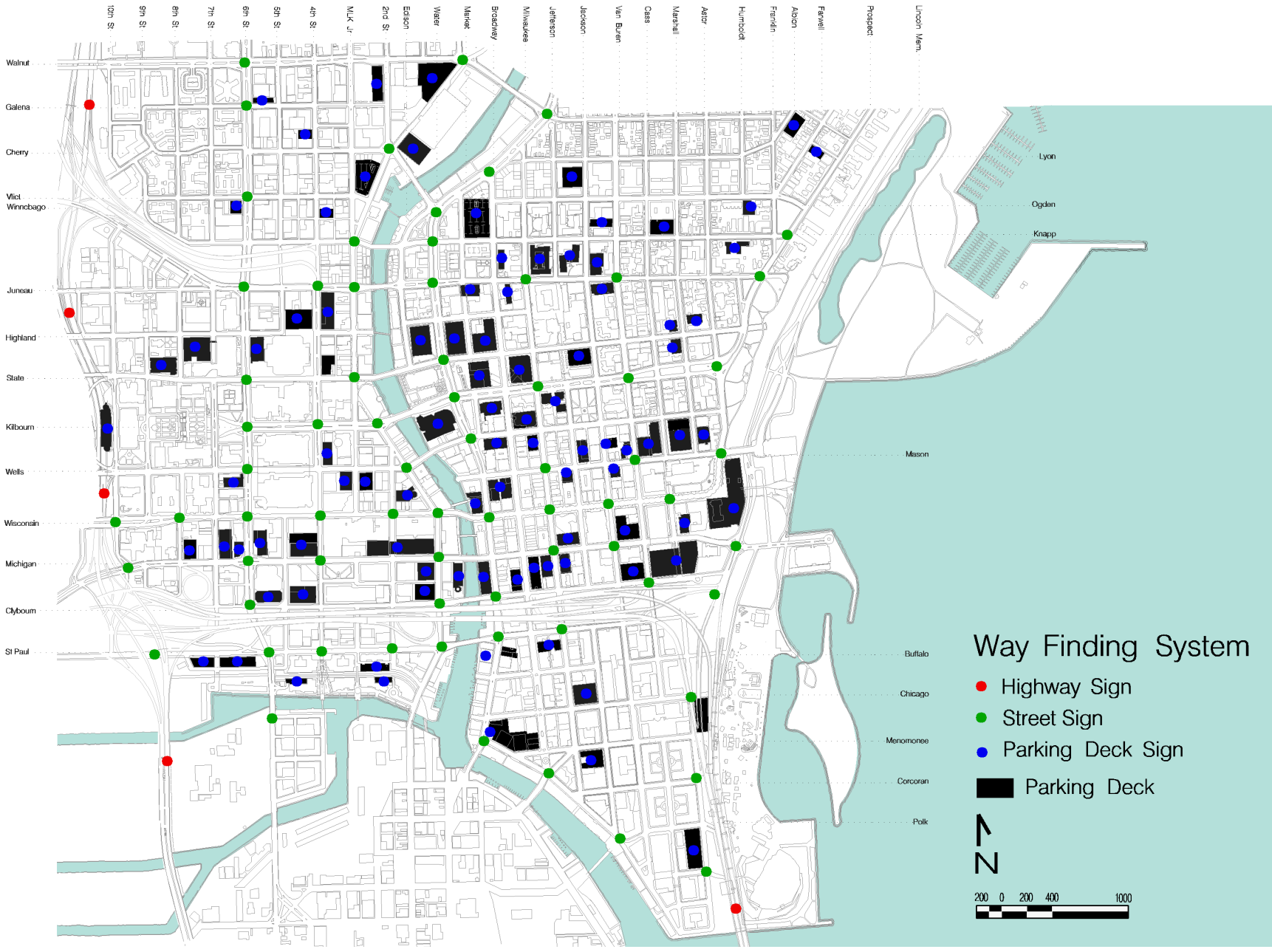
Any remaining surface parking lot must be heavily landscaped on the periphery and the interior. The design standards recommend peripheral screen which is 95% visually impervious up to four feet and 50% visually impervious up to six feet. No fence or hedge shall be over 6 feet. Five feet is the optimum height to obscure views of parked cars. A combination of decorative fence and landscaping is recommended. Chain link and stockade are not allowed.

The interior of the lot shall be landscaped with trees at the rate one tree per four parking spaces. A planting diamond of a minimum of 5 by 5 feet with no curbs and small bollards on the corner are recommended. This parking lot landscaping treatment has significant advantages in that it does not decrease the number of spaces, absorbs runoff and certainly contributes to the greening of the city. A surface parking lot if properly landscaped can become an amenity.

The surface parking lots under the freeway pose a challenge. The pedestrian connections under the freeway must be enhanced through edging and fencing.



A planted parking lot, aerial perspective



Vehicular Way Finding

Vehicular way finding will make parking more efficient and cost effective. The proposed features of the parking plan begin on the approaching freeways. Electronic signs indicate the flow condition of the various exits as well as the availability of parking at the various exits. The Vehicular Way Finding Map illustrates the recommended location for these freeway signs. These will be placed above the lanes of travel.

Street signs directing drivers to the location of decks and occupancy status parking deck signs are the other components of the vehicular way finding. Those who come Downtown regularly know where parking spaces are and the most efficient route to them. However, visitors, occasional Downtown users and tourists are generally unfamiliar with parking locations. For this group, street signs and the parking deck sign will be the most helpful. This system will improve the utilization of the decks, which are currently under capacity.

The parking directional streets sign has been designed in a distinctive shape and distinctive color combination allow them to be clearly seen. It will direct the drivers to entrances of the decks. The recommended location of these signs is illustrated on the Way Finding system map.

A second sign has been designed to be located on or near the parking deck entrance. It will inform drivers of the availability of spaces within the deck. These will typically be hanging signs, suspended out from the deck. The sign will inform the motorist of the occupancy rate. If the deck is full the sign will direct the motorists to an adjacent location with parking available.

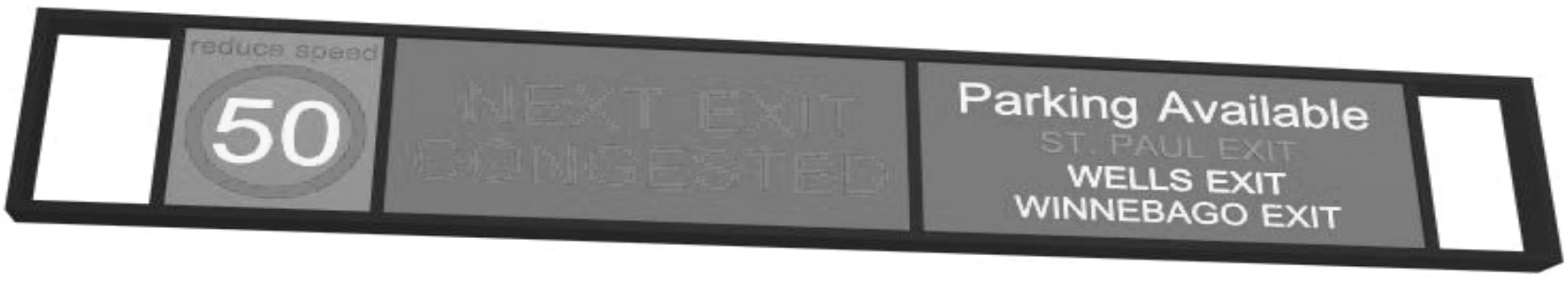
A second street sign, a type of park and ride sign, has been designed to inform drivers that a trolley/transit stop is adjacent to the parking location. These might be mounted inside the deck to direct the people to the transit stop.

Returning Downtown to a pedestrian-friendly environment where one is unnaturally dependent upon a car requires a multi-facetted approach to parking and transit. The geographic distribution of activity generators, though destined to become infilled and concentrated, will not be decreased. Parking decks must be strategically linked to transit stops and activity generators through a Way Finding system.

"Park Once"

The "Park Once" system organizes parking facilities so that when driving into Downtown one need only park once and be within easy access to his or her destination anywhere Downtown. Trolleys will be immediately available or within a very short waking distance of all parking facilities.

Parking and Wayfinding signs



Freeway information signs

Park and ride sign

Parking direction signs

Signs at entrance of parking deck

Implementation Strategy

The City may want to consider the following:

To implement this plan will require coordinated, lease agreements for parking. Private cooperation will require a parking management strategy. Private parking should be combined with a public parking authority. Each new project must be encouraged to employ shared parking concept for the greatest parking efficiency. An association of parking deck owners and operators is highly recommended. Coordinated parking pricing and marketing strategies should be pursued.

When seeking approval for new or rehabilitated buildings, a maximum parking requirement should be imposed. Curbside parking should be included as meeting the parking requirements. Long term renewal lease agreements for off site parking within a five minute walk of any use should be used to meet any or all of the parking requirement and agreed to as a condition of approval or final certificate of occupancy. Any developer who builds a building below the maximum on-site required parking should be given a bonus.

Application for State and Federal grants for recommend improvements like the vehicular and pedestrian way finding system should be pursued.

Designated preferred parking locations for carpools and vanpools to encourage their use.

Limit on-street parking times. Alternatively, structure meter fees to become progressively more expensive over time.

Establish a parking tax.

Establish a municipal parking fund and allow developers to contribute to the fund for the provision of parking.

Encourage developers to support transit or payment into a municipal parking or traffic mitigation fund.

Require visual and audible signals at parking deck entrances and exits that indicate vehicular presence to passing pedestrians.

Parking deck entrances should not be permitted on Type “A” streets.

Implement zoning that allows owners of existing parking structures to enhance their building’s impact. Elevations should be modified to present street-level windows. Incentives should encourage “lining” structures with small shops and offices at sidewalk level.